

	FI-PM-001	Rev.: D
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Title: TPSS PM Kit (Field Instructions)		
★★ Personnel performing this procedure should wear appropriate personal protective equipment.		

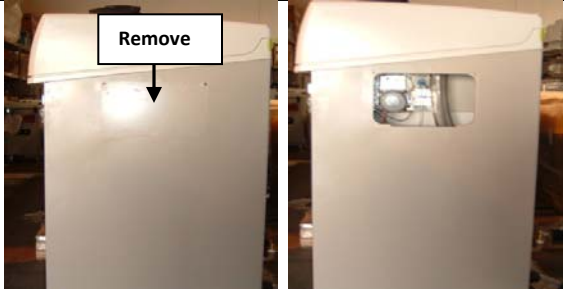
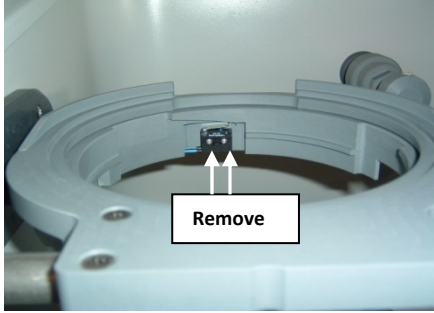
The following is a list of parts that are contained in this kit. This list serves as a packing slip for manufacturing:

Initial	Part #	Description	Quantity
	13007	WASH ENZYME ASSEMBLY	1 EA
	90002	WASH EU ASSEMBLY	2 EA
	90059	LEFT HAND CANISTER SWITCH KIT	1 EA
	90060	RIGHT HAND CANISTER SWITCH KIT	1 EA
	90221	TUBING 1/4" TYGON	10 FT
	90231	TUBING 1/2" BRAIDED	6 FT
	90232	TUBING 1/4" BRAIDED	10 FT
	90233	TUBING 3/8" BRAIDED	5 FT
	90237	TEE 1/4"HB	2 EA
	90244	ELBOW 1/2"MPT X 1/2"HB	1 EA
	90274	CLAMP 5/16" - 7/8"	6 EA
	90552	TEFLON TAPE 1/2"	50 FT
	90610	TEE 1/2" MPT X 1/4"HB X 1/4"HB PVD	1 EA
	90629	CLAMP 3/8" - 7/16" SINGLE PINCH	2 EA
	90710	RTV SILICONE ULTRA BLUE	1 EA
	90807	SCREW 10-32 X 1 1/4 PTHMS 18-8SS	12 EA
	91010	TPSS EVAC DIAPHRAGM PUMP DIAPHRAGM	3 EA
	91133	TPSS LID SEAL 7/16"	7 FT
	91477	CLAMP SNAP GRIP SIZE BB	3 EA
	91611	TPSS EVAC EPDM DIAPHRAGM	2 EA

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TPSS PM Kit Instructions – Canister Switches

1. Remove the two side access panel to gain access to the dump mechanism.	
2. Place something over the drain to prevent small parts from falling in.	
3. Remove the two small screws that secure each of the canister switches to the canister rings.	
4. Enter the service mode by pressing the “abort” button and holding it in. While holding “abort” in, press the “clean sink” and “wash” buttons and then let go of all three at once. To verify that you have entered the service mode look at the display, you should see the software version being displayed. The software version may be different than the version shown.	

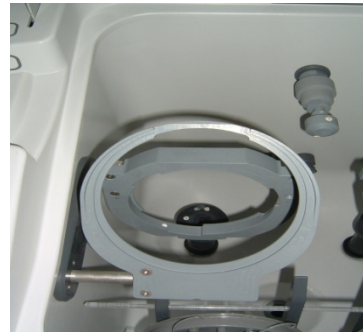
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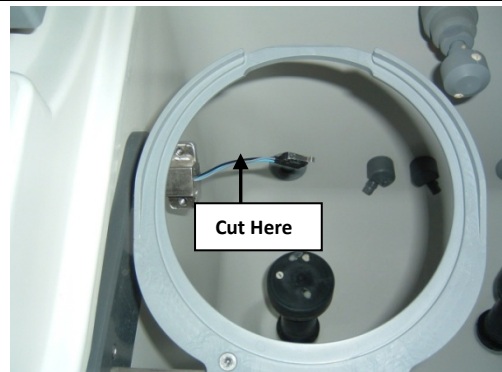
5. Using the “clean sink” button scroll to line item 6 or line item 7 depending on which side (left or right) canister switch you are replacing first. If you scroll past the intended line item, use the “wash” button to scroll back. You will see one the following screens once you have reached the designated line item for either the left or right dump mechanism.



6. Press the “open” button to rotate the canister rings. When the rings are positioned as shown, press the “abort” button to stop the rotation.



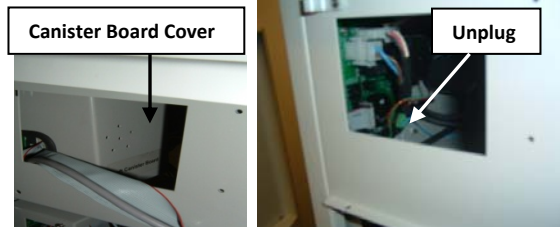
7. This ring position will enable access to the two Allen head screws which secure the canister ring to the canister ring clamp. Using a 1/8” Allen wrench loosened the two screws and remove the canister ring Next, cut the switch where indicated with a pair of diagonal cutters and discard the switch.



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8. Remove the board cover by removing the two screws located on the bottom of the cover. Unplug the canister switch leads plug from the canister board. This is the green plug that is plugged into the canister board.



9. Pull the canister switch wires out from the canister shaft as shown



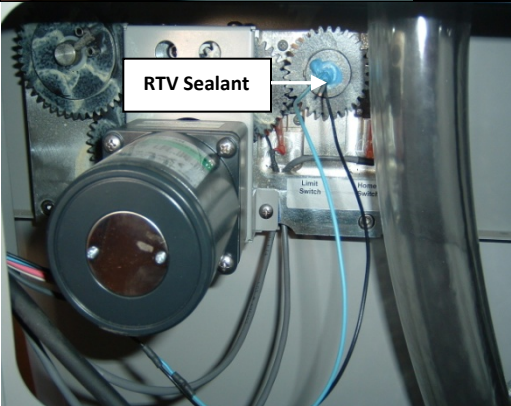
10. Remove the plug end from the canister wire as it will be used with the replacement switch. Perform the same steps for the opposite side as well



11. Feed the canister switch leads through the opening of the canister ring clamp, and through the canister shaft opening. Make sure the left hand canister switch is used for the left hand side and the right hand canister switch for the right hand side.

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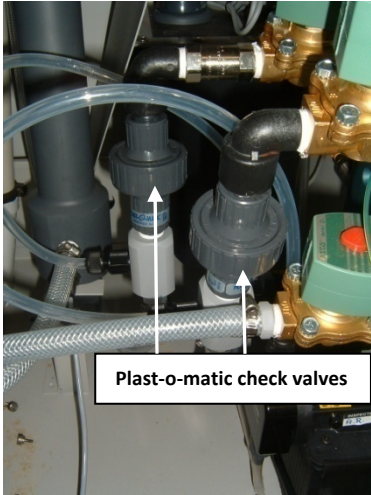
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12. Re-install the canister ring onto the canister ring clamp. <u>Tighten the screws with a torque wrench to 10 inch pounds if one is available. Be careful not to over tighten if a torque wrench is not available.</u>	
13. Attach the canister switch to the canister ring with the two screws included in the switch kit.	
14. Attach the canister board plug to the blue and black wires and plug back into the canister board.	
15. Apply RTV sealant to the shaft where the canister leads exit the shaft.	
16. Once RTV has been pushed into the canister shaft, slowly rotate the canister leads to let any air escape. Reapply some additional RTV.	
17. Cut the gray lead so that there only about a 1 ½" exiting the canister shaft. Perform these steps for both sides.	

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TPSS PM Kit Instructions – Chemical Pumps

1. Remove the front panel from the unit. Remove the screws or bolts at the base of the front panel. If there are no fasteners, the panel is snapped on at the top edge. Slide your fingers around the side to the seam and pull out on the panel at the top.	
2. Turn off the hot and cold water at the backflow preventers or water supply. Place a canister in the unit and hit “Wash” to release the pressures in the manifolds and then hit “Abort”. <i>Note: Have some towels handy to wipe up any fluid that comes out of the hoses during the removal procedure.</i>	
3. Electrical Hazard Present: Unplug the unit at this point before servicing.	
4. Locate the two plast-o-matic check valves in the lower right side of the unit.	 Plast-o-matic check valves

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5. Uncouple the two plast-o-matic check valves. Remove the black diaphragms from the check valves.



6. Verify there is no fluid in the fill tubes that go down into the chemical tanks and then remove the clear hose from the pick-up tube on the enzyme tank (back right) and from the bleach flow sensor (back left).

Note: If there is fluid in the 1 ½" fill tube above the tank, drain it out in the manual menu before removing the tubing.

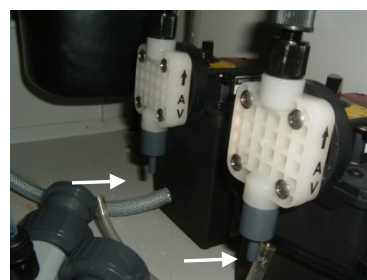


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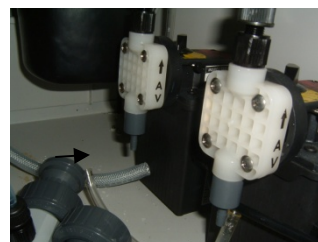
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7. Remove the pump head covers for both of the pumps on the right side. Remove the clear tygon tubing from the bottom inlet on both of the pumps. Remove the tubing from the unit as it will be replaced later in this procedure.

Note: There will be some bleach that comes out of the tubing. Have a towel ready to soak it up.



8. Remove the four screws from each of the pump heads.



9. Once the pump heads are removed from the two chemical pumps, remove the diaphragms from each chemical pump by unscrewing them in a counter clockwise direction.

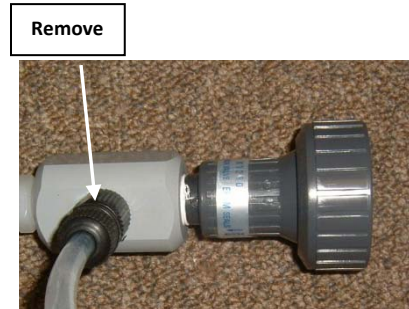


10. Install a new diaphragm into each pump.

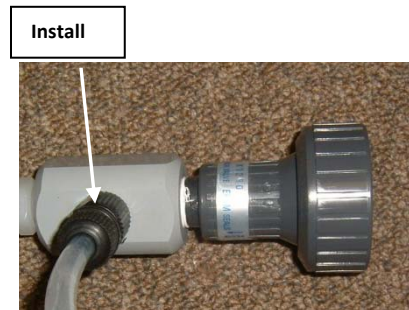
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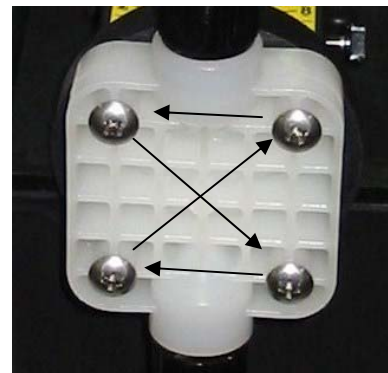
11. Remove the black fitting and tubing from each of the two bleach injection manifolds as shown.



12. From the PM Kit install one of the new hose and pump head assembly into each of the bleach injection manifolds from the above step.



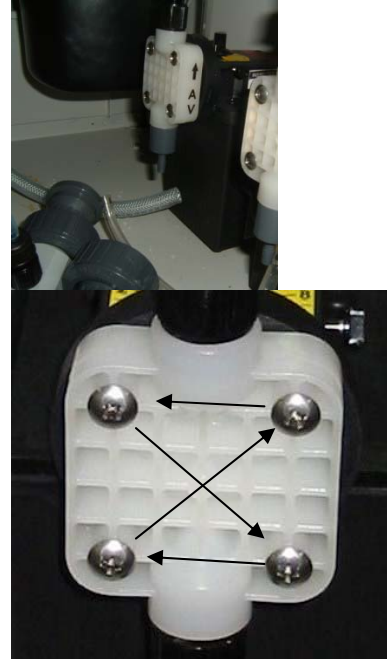
13. Take the pump head from the assembly installed onto the bleach injection manifold in the last step. Use the one that has the 3/8" hose attached to the gray bleach injection manifold. Attach it to the rear chemical pump with four new screws. Fasten the pump head back onto the pump with the supplied screws. When you torque the head down, slowly tighten in all of the screws using an alternating pattern.



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14. Take the pump head from the assembly installed onto the bleach injection manifold two steps back. Use the one that has the 1/2" hose attached to the gray bleach injection manifold. Attach it to the front chemical pump with four new. Fasten the pump head back onto the pump with the supplied screws. When you torque the head down, slowly tighten in all of the screws using an alternating pattern.



15. Loop the chemical feed lines that are attached to the top of the pump heads as indicated. Install the plast-o-matic check valve diaphragm into each of the check valves. Orientation is pictured. Re-couple each of the Plast-o-matic check valves as indicated.



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16. Remove the tubing from the bottom of the enzyme chemical pump on the left side of the unit. Remove the tubing from the unit as it will be replaced later in this procedure.



17. Remove the pump head cover from the enzyme chemical pump. Remove the four screws on the pump head to gain access to the enzyme chemicals pump diaphragm.



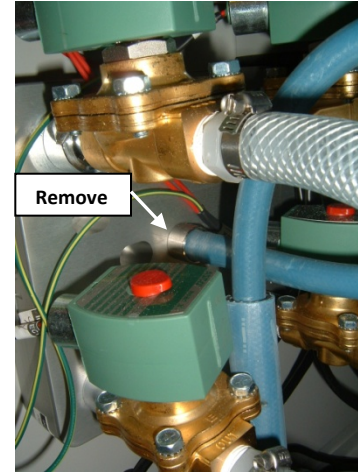
18. Once the pump head is removed from the enzyme chemical pump, remove the diaphragm un-screwing it in a counter clockwise direction.

19. Install a new diaphragm into the pump.

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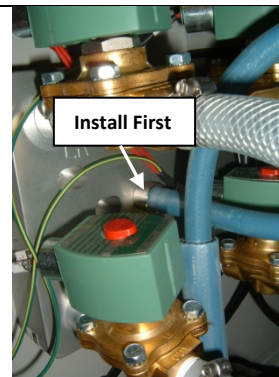
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20. Remove the Wash Enzyme Assembly by unscrewing the fitting that is inserted into the hot water manifold. To remove unscrew in a counter clockwise direction.

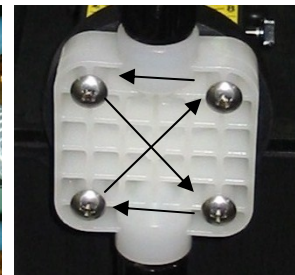
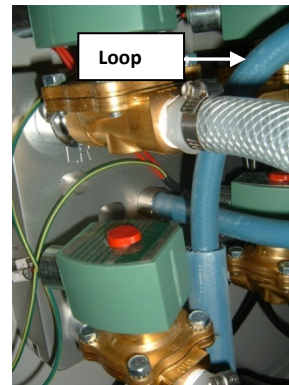


21. Install the new Wash Enzyme Assembly from the PM kit by first installing the fitting on the end of the blue line into the hot water manifold.

Note: Be careful not to damage the o-ring when turning the fitting in. Apply some lubricant to help with the installation.



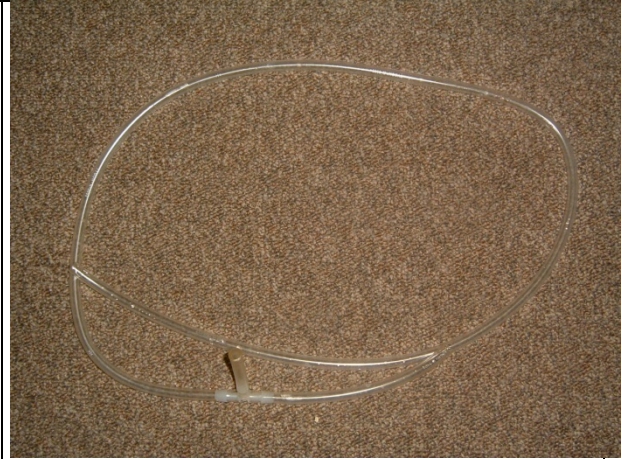
22. Loop the blue line and attach the pump head to the enzyme chemical pump by using four new screws. Fasten the pump head back onto the pump with the supplied screws. When you torque the head down, slowly tighten in all of the screws using an alternating pattern.



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23. Using the new ¼" tygon tubing and ¼" tee from the kit cut new lines at the same length as the bleach tubing taken out earlier. Insert the tee in the proper location and install new tubing back onto the bottom of each bleach chemical pump as well as the outlet of the bleach flow sensor. Place the black snap grip clamps from the kit onto each hose on the ¼" tee.



24. Using the new ¼" tygon tubing from the kit cut a new line the same length as the enzyme tubing taken out earlier. Install new enzyme chemical line back onto the bottom of the enzyme chemical pump as well as the enzyme pickup tube located on top of the enzyme chemical tank.

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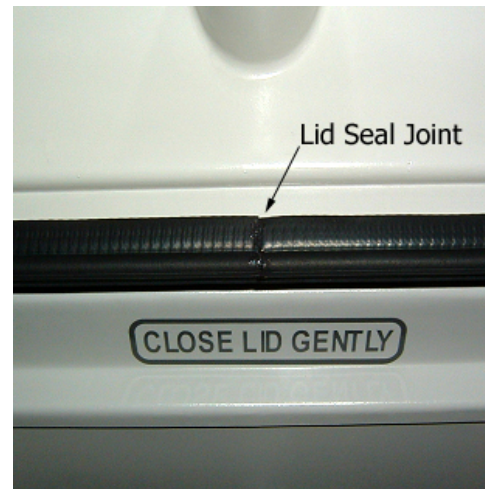
TPSS PM Kit Instructions – Lid Seal

REPLACE LID SEAL

1. Pull the old seal off the lid starting at the rear where the two ends of the lids seal are joined.



2. Install the new seal by starting the seal from the back in the center where the original seal was cut and press it onto the edge a little at a time. You may use a small hammer to “gently” tap it on if necessary, cut off the excess. No adhesive is required to hold the lid seal in place.



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TPSS PM Kit Instructions – Scale Cartridge Check, PM Reset and Unit Testing

1. If the unit has scale cartridges on the hot and cold water lines, open the housings and check how much of the media is left in the cartridge. If the media is gone or less than 2", it should be replaced. Contact Dornoch for ordering information.	
2. Get into the service mode if not already in. Press the "Wash" button and scroll to line 128.13. Once there, press the "Open" button to reset the PM. Then press the "Clean Sink" button and the "Abort" button.	
3. Test run the unit to verify that the canister switches are functioning as expected.	
4. Display should read " L Can, R Can " as well as an audible beep when locking canisters into place. These two indicators will verify that the switches are working normally.	
5. Run several cycles with both canisters in the unit and check all plumbing for leaks and watch the unit for errors. Leave all extra parts inside of the unit when PM is completed.	
6. Reattach the canister board covers and side panels, as well as the front panel.	
7. Run another cycle with both canisters in the unit and check the unit for errors.	